

## CLAIMS

1. A print control apparatus that controls a printer engine which prints data contents based on print data indicating the contents to be printed, comprising:

5 a data generation unit operable to i ) obtain the print data from outside the print control apparatus and ii ) generate print data with an attribute by adding, to the print data, attribute information indicating the attribute of the print data;

10 a storage unit having a region for storing the print data with the attribute;

a writing unit operable to write, into the storage unit, the print data with the attribute generated by the data generation unit;

15 an arrangement display unit operable to arrange and display, based on an operation by a user, each print processing name of a plurality of print data with the attribute stored in the storage unit in an order according to the attribute information included in each of the plurality of print data with the attribute; and

20 a print execution unit operable to allow the user to select one of the print processing names displayed on the arrangement display unit, and cause the printer engine to execute printing based on the print data corresponding to the selected print processing name.

2. The print control apparatus according to Claim 1,

25 wherein the arrangement display unit further selects and displays a print processing name corresponding to the attribute information specified by the user among the print processing names arranged in the order according to the attribute information.

3. The print control apparatus according to Claim 2,

30 wherein the data generation unit i ) generates attribute information using, as an attribute of the print data, an order in which the print data with the attribute generated from the print data is

written into the storage unit by the writing unit, and ii) adds the generated attribute information to the print data.

4. The print control apparatus according to Claim 1,

5 wherein the data generation unit i) obtains, from outside the print control apparatus, information together with the print data, the information indicating an identifier generated so that the print data is identified by the user, ii) generates attribute information using the identifier as an attribute of the print data, and iii) adds the  
10 generated attribute information to the print data.

5. The print control apparatus according to Claim 1,

15 wherein the data generation unit i) extracts, from the print data, information indicating an identifier with which the print data is identified by the user, ii) generates attribute information using the identifier as an attribute of the print data, and iii) adds the generated attribute information to the print data.

6. The print control apparatus according to Claim 5,

20 wherein the data generation unit obtains, as the identifier, information indicating a creator's name of the print data and generates attribute information indicating the creator's name.

7. The print control apparatus according to Claim 6,

25 wherein the arrangement display unit arranges and displays said each print processing name of the plurality of print data in an order of fifty phonetic characters of the creator's name included, as an attribute information, in each of the plurality of print data with the attribute.

30 8. The print control apparatus according to claim 1,

wherein the data generation unit i) generates attribute

information using, as an attribute of the print data, a number of papers needed when a printing based on the print data is executed by the printer engine and ii) adds the generated attribute information to the print data.

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9. The print control apparatus according to Claim 1,  
wherein the data generation unit i) generates attribute information indicating that there is no readout from the storage unit, ii) adds the generated attribute information to the print data, and  
10 iii) updates, when the print data is read out from the storage unit for the printing by the print execution unit, contents of the attribute information corresponding to the print data to a number of times the print data has been read out.

15 10. The print control apparatus according to Claim 1,  
wherein the data generation unit i) generates attribute information indicating that there is no readout from the storage unit, ii) adds the generated attribute information to the print data, and  
iii) updates, when the print data is read out from the storage unit for  
20 the printing by the print execution unit, contents of the attribute information corresponding to the print data to an order in which the print data is read out from the storage unit.

11. The print control apparatus according to Claim 1,  
25 wherein the data generation unit i) generates attribute information using, as an attribute of the print data, an order in which the attributed print data generated from the print data is written into the storage unit by the writing unit, and ii) adds the generated attribute information to the print data.

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12. The print control apparatus according to Claim 1,  
wherein the arrangement display unit preferentially displays

a character in a character string indicating said each print processing name from a character placed in a latter part of the character string.

- 5 13. A print control method for controlling a printer engine which prints contents based on print data indicating the contents to be printed, comprising:

a data generation step of obtaining the print data, and generating print data with an attribute by adding, to the print data,  
10 attribute information indicating the attribute of the print data;

a writing step of writing, into a memory, the print data with the attribute generated in the data generation step;

an arrangement display step of arranging and displaying each print processing name of a plurality of print data with the attribute  
15 stored in the memory in an order corresponding to the attribute information included in each of the plurality of print data with the attribute; and

a print execution step of allowing a user to select one of the print processing names displayed in the arrangement display step  
20 and causing the printer engine to execute printing based on the print data corresponding to the selected print processing name.

14. The print control method according to Claim 13,

wherein in the arrangement display step, a print processing  
25 name is further selected and displayed, the print processing name corresponding to the attribute information specified by a user among the print processing names arranged in the order according to the attribute information.

- 30 15. The print control method according to Claim 14,

wherein in the data generation step, attribute information is generated using, as an attribute of the print data, an order in which

the print data with the attribute generated from the print data is written into the memory in the writing step and the generated attribute information is added to the print data.

5 16. The print control method according to Claim 13,  
wherein in the data generation step, information is obtained together with the print data, attribute information is generated using the identifier as an attribute of the print data, and the generated attribute information is added to the print data, the  
10 information indicating an identifier generated so that the print data is identified by the user.

17. The print control method according to Claim 13,  
wherein in the data generation step, information is extracted  
15 from the print data, attribute information is generated using the identifier as an attribute of the print data, and the generated attribute information is added to the print data, the information indicating the identifier with which the print data is identified by the user.

20 18. The print control method according to Claim 13,  
wherein in the data generation step, attribute information is generated using, as an attribute of the print data, a number of papers needed for causing the printer engine to execute the printing  
25 based on the print data, and the generated attribute information is added to the print data.

19. The print control method according to Claim 13,  
wherein in the data generation step, attribute information is  
30 generated, the generated attribute information is added to the print data, and when the print data is read out from the memory for the printing in the print execution step, contents of the attribute

information corresponding to the print data is updated to a number of times the print data is read out, the attribute information indicating that there is no readout from the memory.

5 20. The print control method according to Claim 13,  
wherein in the data generation step, attribute information is generated, the attribute information is added to the print data, and when the print data is read out from the memory for the printing in the print execution step, contents of the attribute information  
10 corresponding to the print data to an order in which the print data is read out from the memory, the attribute information indicating that there is no readout from the memory.

21. The print control method according to Claim 13,  
15 wherein in the data generation step, attribute information is generated using, as an attribute of the print data, an order in which the attributed print data generated from the print data in the writing step, and the generated attribute information is added to the print data.

20 22. The print control method according to Claim 13,  
wherein in the arrangement display step, a character of a character string indicating said each print processing name is preferentially displayed from a character placed in a latter part of  
25 the character string.

23. A program for controlling a printer engine which prints contents based on print data indicating the contents to be printed, the program causing a computer to execute:  
30 a data generation step of obtaining the print data, and generating print data with an attribute by adding, to the print data, attribute information indicating the attribute of the print data;

a writing step of writing, into a memory, the print data with the attribute generated in the data generation step;

an arrangement display step of arranging and displaying, based on an operation by a user, each print processing name of a plurality of the print data with the attribute stored in the memory in an order according to attribute information included in each of the plurality of the print data with the attribute; and

a print execution step of allowing a user to select one of the print processing names displayed in the arrangement display step and causing the printer engine to execute printing based on the print data corresponding to the selected print processing name.

24. The program according to Claim 23,

wherein in the arrangement display step, a print processing name is further selected and displayed, the print processing name corresponding to the attribute information specified by the user among the print processing names arranged in the order according to the attribute information.

25. The program according to Claim 23,

wherein in the data generation step, the attribute information is generated using, as an attribute of the print data, an order in which the print data with the attribute generated from the print data in the writing step, and the generated attribute information is added to the print data.

26. A printer comprising a printer engine which prints contents based on print data indicating the contents to be printed and a print control apparatus which controls the printer engine,

wherein the print control apparatus includes:

a data generation unit operable to i ) obtain the print data from outside the print control apparatus and ii ) generate print data

with an attribute by adding, to the print data, attribute information indicating the attribute of the print data;

a storage unit having a region for storing the print data with the attribute;

5 a writing unit operable to write, into the storage unit, the print data with the attribute generated by the data generation unit;

an arrangement display unit operable to arrange and display, based on an operation by a user, each processing name of a plurality of print data with the attribute stored in the storage unit in an order  
10 according to the attribute information included in each one of the plurality of print data with the attribute; and

a print execution unit operable to allow a user to select one of the print processing names displayed on the arrangement display unit, and cause the printer engine to execute printing based on the  
15 print data corresponding to the selected print processing name.

27. The printer according to Claim 26,

wherein the arrangement display unit further selects and displays a print processing name corresponding to the attribute  
20 information specified by the user among the print processing names arranged in the order according to the attribute information.

28. The printer according to Claim 26,

wherein the data generation unit generates attribute  
25 information using, as an attribute of the print data, an order in which the print data with the attribute generated from the print data is written into the storage unit by the writing unit, and adds the generated attribute information to the print data.